



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,877	11/05/2001	Hakan Ozdemir	99-S-190 (1678-22-1)	8286
30431	7590	12/02/2005	EXAMINER	
STMICROELECTRONICS, INC. MAIL STATION 2346 1310 ELECTRONICS DRIVE CARROLLTON, TX 75006			RODRIGUEZ, GLENDA P	
			ART UNIT	PAPER NUMBER
			2651	

DATE MAILED: 12/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/993,877

Applicant(s)

OZDEMIR, HAKAN

Examiner

Glenda P. Rodriguez

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,5-7 and 29-31 is/are allowed.
- 6) ☒ Claim(s) 3,4,8-28 and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/27/05.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 3, 4, 8-28 and 32 are rejected under 35 U.S.C. 102(e) as being anticipated by Hull et al. (US Patent No. 6, 262, 857).

Regarding Claim 3, Hull et al. teaches a storage disk, comprising:

Data sectors (Element 90);

Servo wedges each detectable by a read head upon initial spin-up and identifying a respective data sector (See Col. 4, L. 12-26 and See Also Fig. 3A, Element 78 and Col. 14, L. 17-44 and Col. 30, L. 39-54, wherein Hull et al. teaches that all the servo sector do contain a track ID that gives the initial positioning of the medium during a power down in the HDD.); and

No spin-up wedges (See Figs. 3A and 3B, wherein No spin up wedges are presented).

Claims (8 and 32) have limitations similar to those treated in the above rejection, and are met by the references as discussed above. Claims (5 and 8) however also recite the following limitations..."Servo wedges detectable without a zero-frequency field upon an initial spin-up located in the disk sectors and each having a pre-synchronization-mark section of the other servo

Art Unit: 2651

wedges and no servo wedge having a pre-synchronization-mark section with a significantly different bit pattern or a significantly different length as compared to the pre-synchronization-mark section of the other servo wedges (Col. 31, L. 2-65, wherein Hull et al. teaches using elements in SAM for synchronization, wherein it is known that there are elements in the SAM that have to be consistent throughout the disk (SSM in this case) and some other elements.)

Claims (14 and 20) have limitations similar to those treated in the above rejection, and are met by the references as discussed above. Claims (14 and 20) however also recite the following limitations..."a motor, a read head, a read head positioning circuit, a servo circuit, a servo channel and processor (See Fig. 1D, Elements 16, 20, 18, 22, 26 and 34, respectively)".

Method claim (25) is drawn to the method of using the corresponding apparatus claimed in claims (3, 14, and 20). Therefore method claims (25 and 29) correspond to apparatus claims (3, 14, and 20) and are rejected for the same reasons of anticipation as used above.

Regarding Claims 15, 17 and 22, Hull et al. teaches all the limitations of Claims 14 and 20, respectively. Hull et al. further teaches wherein the servo wedge is operable to identify the track during an initial positioning of a read-write head and during a subsequent read of the data from or write of the data to the track (Col.31, L. 2-65.).

Regarding Claims 4, 16, 21 and 23, Hull et al. teaches all the limitations of Claims 3, 14 and 20, respectively. Hull et al. further teach the data comprises tracks (Fig. 2B) and each servo wedge identifies and is located in a respective track (Col. 16, L. 6-29 and Col.31, L. 2-65.).

Regarding Claim 28, Hull et al. teaches all the limitations of Claim 25. Hull et al. further teach wherein that the pre-synchronization-mark sections of the servo wedges lack erase fields (See Fig. 3A).

Regarding Claims 9, 10 and 11, Hull et al. teach all the limitations of Claim 8. Hull et al. further teach wherein each servo wedge includes a preamble, a servo synchronization mark, a servo address mark, (See Fig. 3A, Col. 14, L. 16-44.)

Regarding Claim 12, Hull teaches all the limitations of Claim 8. Hull et al. further teach wherein each servo wedge is different from the location identifier of another servo wedge (Col. 31, L. 2-65).

Regarding Claim 13, Hull et al. teaches all the limitations of Claim 8. Hull further teach wherein the position bursts of each servo wedge are different from the position bursts of another servo wedge (Col. 31, L. 2-65).

Regarding Claims 18 and 26, Hull et al. teaches all the limitations of Claims 14 and 20, respectively. Hull et al. further teach wherein the read head position circuit and the servo circuit are unable to determine the position of the read head before the processor detects one servo wedge (Col. 31, L. 2-65, Hull et al. teaches the synchronization method used in its invention. It is inherent that because no zero-frequency fields are being used, synchronization is then done by an alternate method, without the need of erase fields.).

Regarding Claim 19, Hull et al. teaches all the limitations of Claim 14. Hull et al. further teach wherein the head is a read-write head (Col. 6, L. 34-47).

Regarding Claim 27, Hull et al. teaches all the limitations of Claim 25. Hull et al. further teach wherein writing the servo wedge comprises writing the servo wedge at the beginning of the disk sector (See Fig. 2B, wherein it teaches a servo/data arrangement according to Hull et al.'s invention (which lie before and between data sectors). See also Fig. 3A and 3B, also Col. 16, L. 6-29 and Col. 31, L. 2-65.).

Art Unit: 2651

Regarding Claim 24, Hull et al. teach all the limitations of Claim 20. Hull et al. further teach wherein the read-head position circuit and the servo circuit are unable to determine an initial position of the read-head before the processor detects the one servo wedge (Col. 31, L. 3-13).

Response to Arguments

3. Applicant's arguments filed 10/03/05 have been fully considered but they are not persuasive for independent Claims 3, 8, 14, 20, and 25.

4. Applicant argues the following: "Hull et al. does not disclose, teach or suggest a servo wedge operable without a zero frequency field to identify a disk sector in conjunction with an initial positioning of a read-write head". However, the Examiner cannot concur with the Applicant because this limitation is not found or cited in the independent Claims 3, 14, 20, 25 and 32.

5. Claim 8, however, does cite a zero-frequency field, but does not explicitly teach the Limitation as shown in independent Claims 1, 5, and 29. Claim 8, cites: servo wedges located in the disk sectors having respective location identifiers, position bursts and other portions having nonzero frequency fields, the other portions of each servo wedge substantially the same as the other portions of all the other servo wedges and detectable during an initial read positioning. Hull et al. teaches that in Fig. 3A, Col. 4, L. 12-26, Col. 14, L. 17-44 and Col. 30, L. 39-54, wherein Hull et al. has the servo sectors containing track ID field wherein initial positioning after a power down of the HDD, along with other non-zero frequency fields. Claim 8 does not cite "a servo wedge operable without a zero frequency field to identify a disk sector in conjunction with an initial positioning of a read-write head" and therefore remains rejected under Hull et al.

Allowable Subject Matter

6. Claims 1, 2, 5-7, 29-31 are allowed.

7. The following is an examiner's statement of reasons for allowance:

Regarding Claim 1, the primary reason for allowance is the inclusion of the limitation wherein a servo wedge operable without a zero-frequency field to identify the sector in conjunction with an initial positioning of a read-write head.

Regarding Claim 5, the primary reason for allowance is the inclusion of the limitation wherein servo wedges detectable without a zero-frequency field upon an initial spin-up located in the disk sectors.

Regarding Claim 29, the primary reason for allowance is the inclusion of the limitation wherein writing a servo wedge without a frequency spin-up field, the servo wedge including first servo data that is operable to identify the first disk sector during an initial positioning of a head over the disk.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

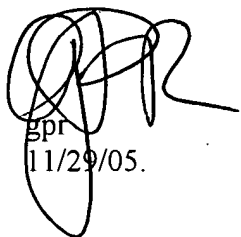
Art Unit: 2651

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


GPR
11/29/05.


DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600